

Automatic Transmission Assembly – Remove and Install (17 214 0)

Workshop Equipment

Transmission jack	
Straps	

Materials

High-temperature grease	ESDM-1C220-A
Automatic transmission fluid (build date up to August '96)	ESP-M2C166-H
Automatic transmission fluid (build date from August '96 onwards)	WSS-M2C202-B
Automatic transmission fluid for vehicles with 2,3 DOHC 16V engine	WSS-M2C202-B

Remove

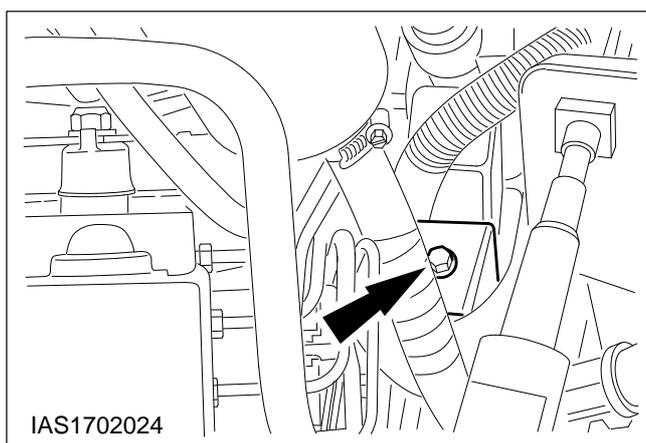
1. Preparatory measures.

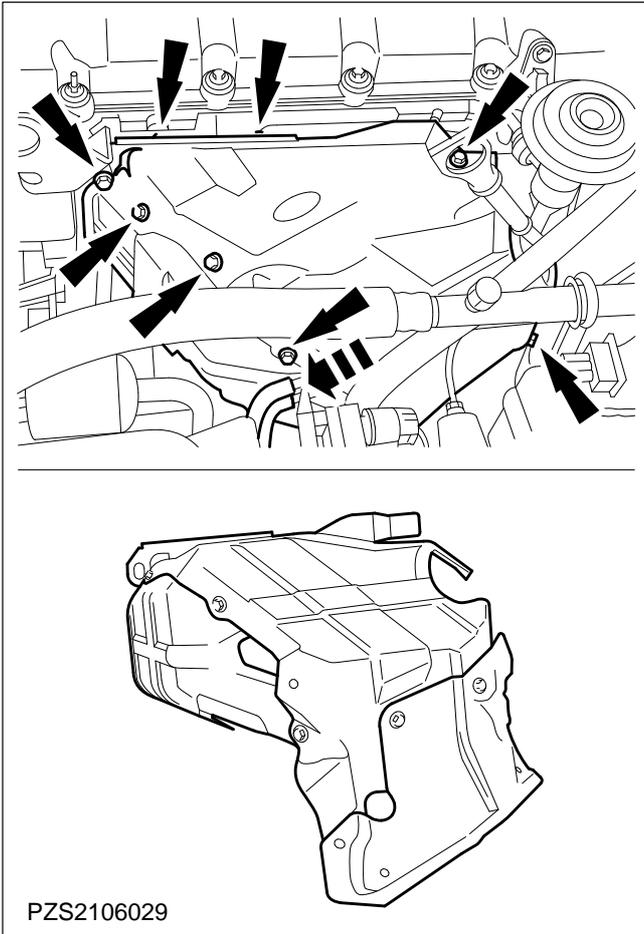
- Make a note of the radio keycode.
- Make a note of the preset radio stations.
- Detach the battery cover.

⚠ CAUTION: Disconnect the battery negative lead.

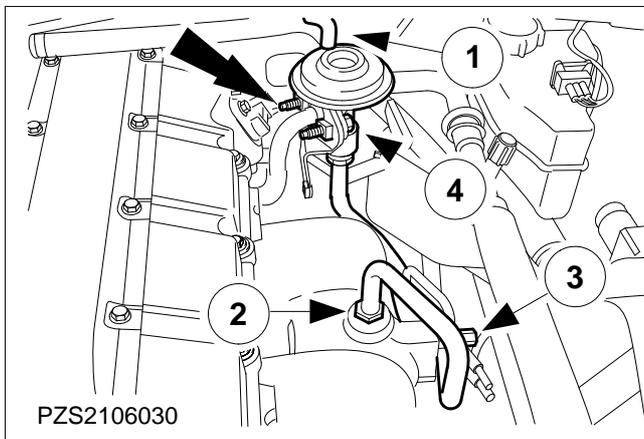
- Remove the dipstick from the automatic transmission.

2. Disconnect the central multiplug for the automatic transmission cable loom.

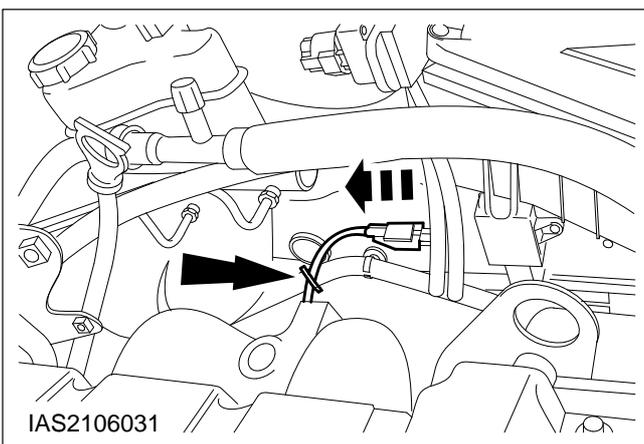




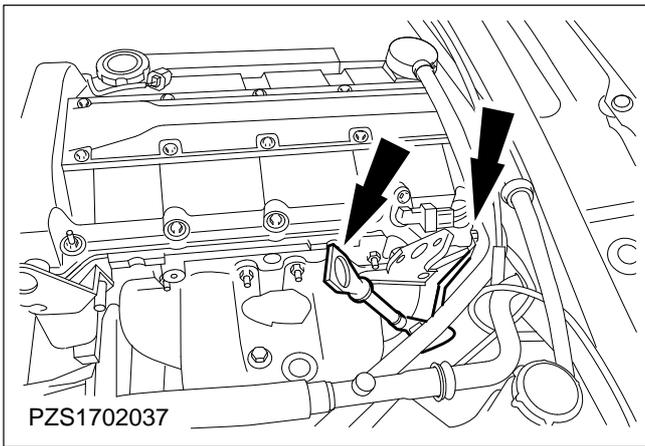
3. Remove the three-part heat shield of the exhaust manifold.
4. Detach the two vacuum hoses.



5. Detach the exhaust gas recirculation (EGR) valve.
 - 1 Disconnect the vacuum hose.
 - 2 Unscrew the pipe from the exhaust manifold.
 - 3 Unscrew the mounting from the exhaust manifold.
 - 4 Detach the EGR valve from the bracket.



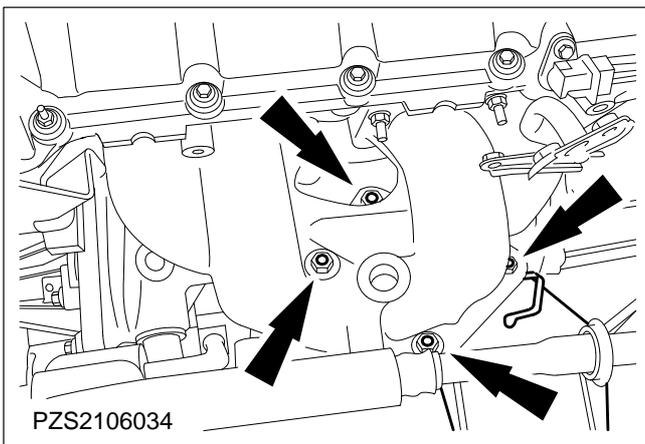
6. Disconnect the multiplug of the heated oxygen sensor (HO2S).
Separate the cable tie.



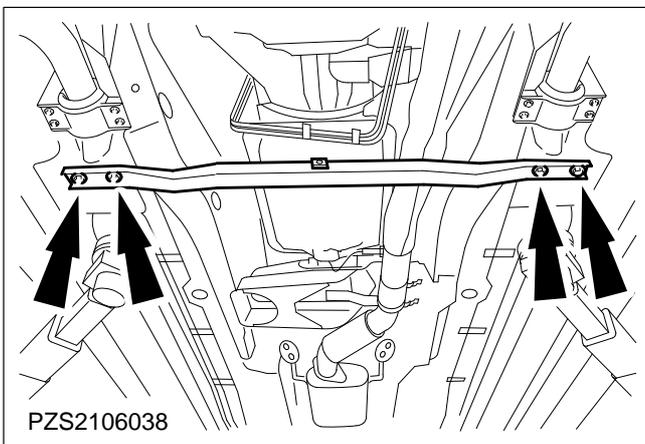
NOTE: Slacken the bolt only.

7. Detach the bracket of the oil dipstick tube.

Withdraw the oil dipstick.



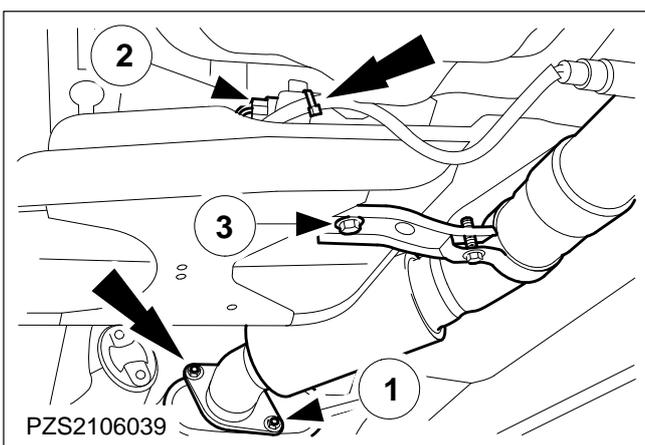
8. Detach the catalytic converter from the exhaust manifold.



9. Raise the vehicle.

10. Detach the engine undershield.

11. Remove the front axle crossbrace.



12. Remove the catalytic converter and the front exhaust pipe.

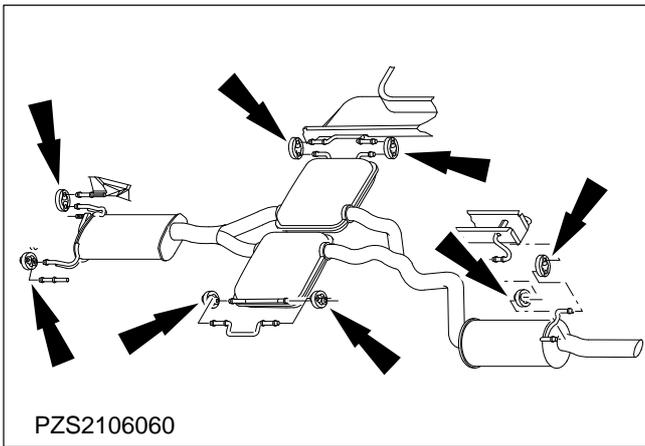
1 Separate the exhaust system.

Remove the gasket.

2 Disconnect the HO2S plug.

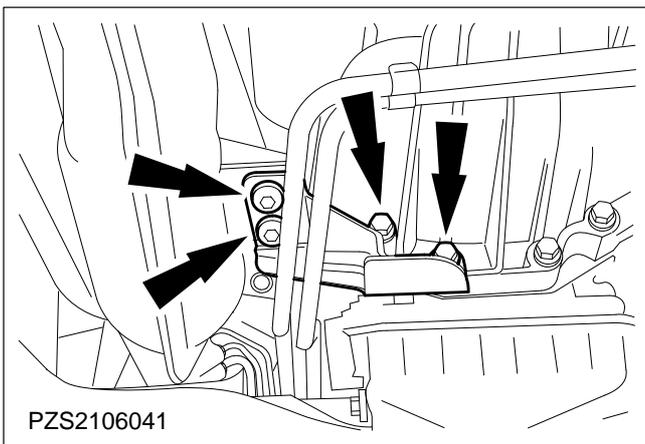
Separate the cable tie.

3 Detach the front exhaust mounting from the transmission crossmember.

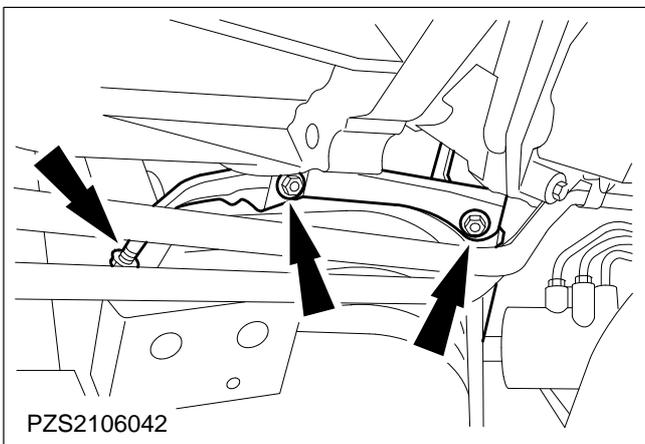


13. Remove the rear part of the exhaust system.

Unhook the rubber mountings.

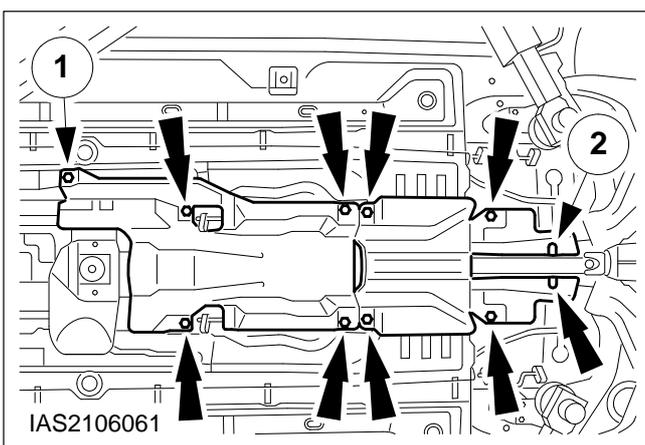


14. Detach the bracket from the catalytic converter and the automatic transmission.



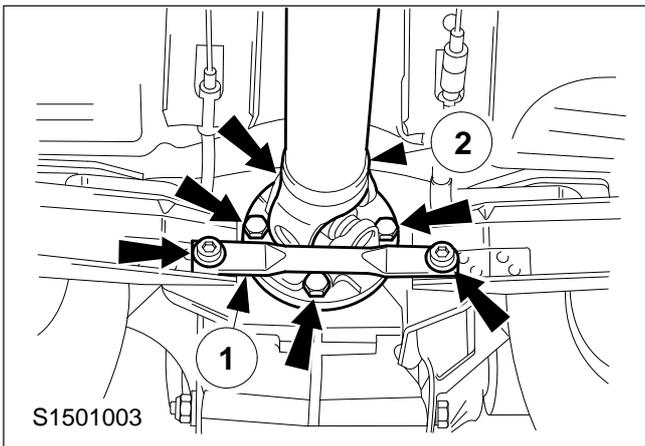
15. Remove the catalytic converter and the front exhaust pipe.

- Open the front bracket of the catalytic converter and remove.
- Remove the catalytic converter and the front exhaust pipe.



16. Detach the exhaust system heat shields.

- 1 Nine nuts.
- 2 Two clips.

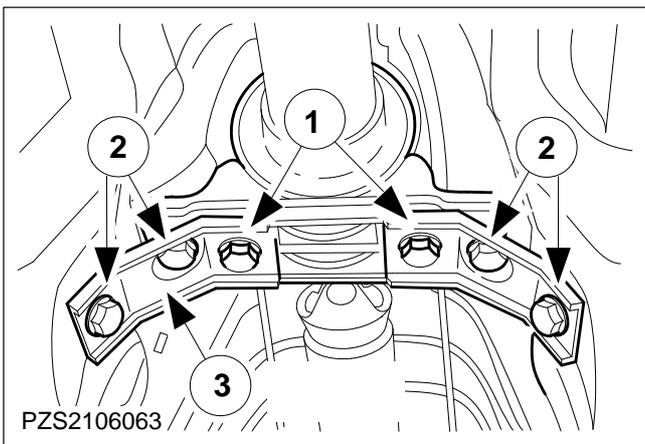


⚠ CAUTION: The driveshaft is finely balance using bolts of different lengths. Mark the installation position of the driveshaft and bolts.

17. Detach the driveshaft from the rear differential.

NOTE: There is no transverse brace on vehicles from 01/96 onwards.

- 1 Detach the transverse brace from the rear axle.
- 2 Detach the driveshaft.



18. Detach the driveshaft centre bearing.

- 1 Slacken the bolts.

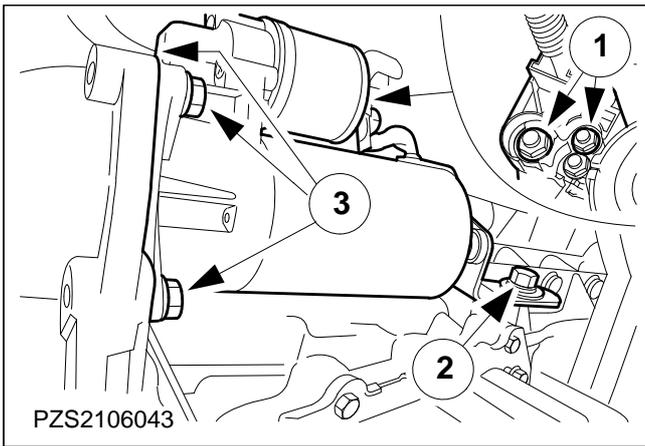
NOTE: There are spacer washers between the floor assembly and the centre bearing.

- 2 Remove the bolts.
- 3 Turn the two brackets 90°.

NOTE: Escaping oil.

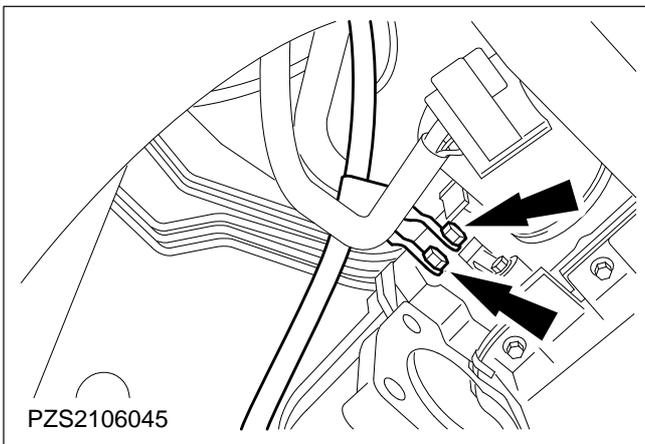
19. Withdraw the driveshaft from the automatic transmission.

Seal the opening with auxiliary plugs.



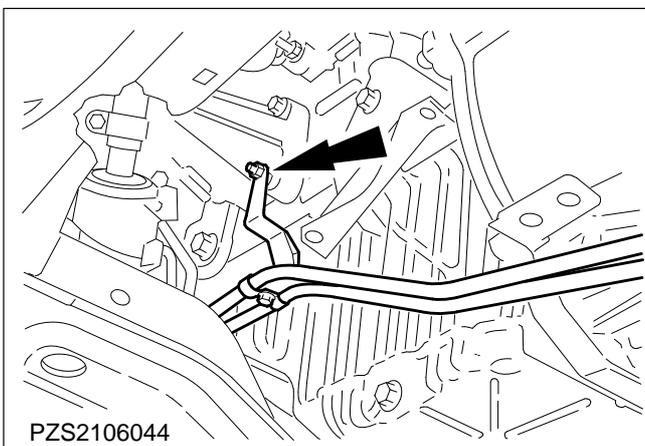
20. Remove the starter motor.

- 1 Disconnect the starter motor wiring.
- 2 Detach the bracket from the cylinder block.
- 3 Remove the bolts.

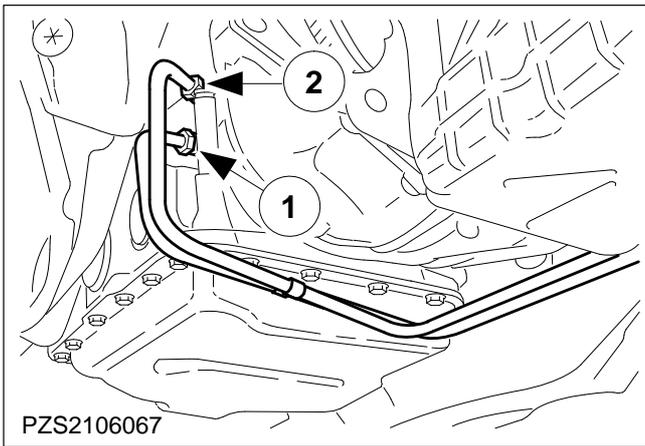


21. Remove the bracket from the automatic transmission oil dipstick tube and ground lead.

Unclip the automatic transmission wiring loom.



22. Remove the oil pipe bracket.

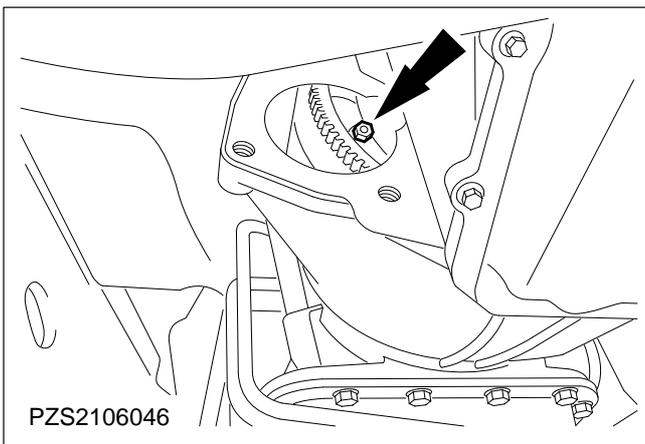


23. Detach the oil pipes from the transmission.

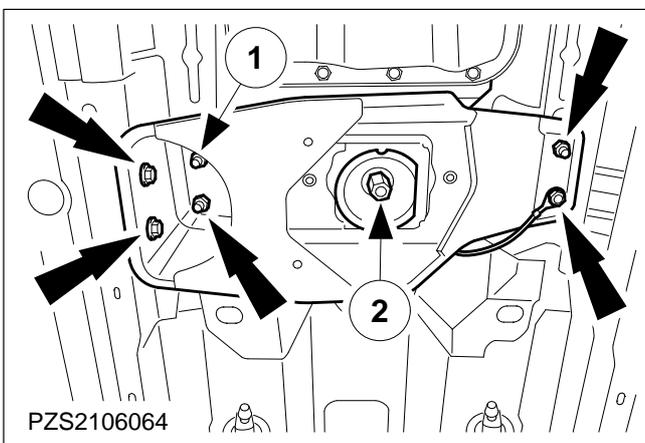
1 Return pipe.

2 Feed pipe.

Seal the openings.



24. Remove the torque converter from the engine drive plate (four nuts).

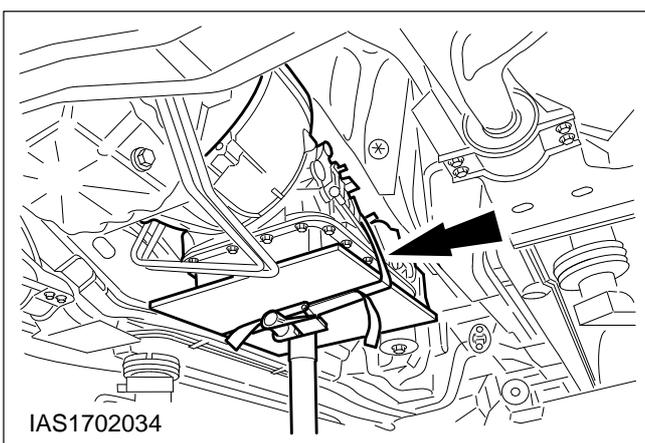


NOTE: Support the transmission with a transmission jack.

25. Detach the transmission crossmember.

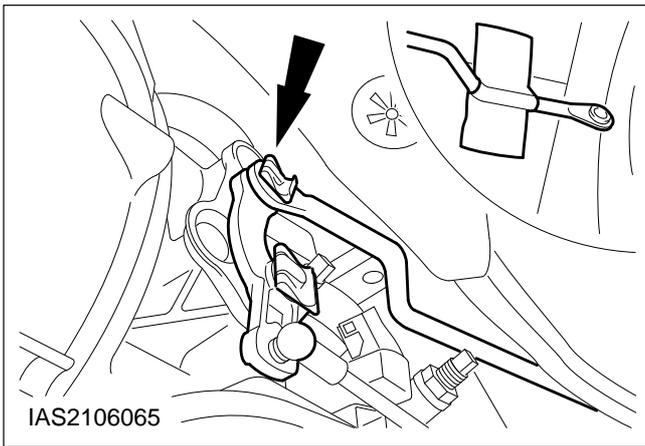
1 Detach from the body.

2 Detach from the automatic transmission.



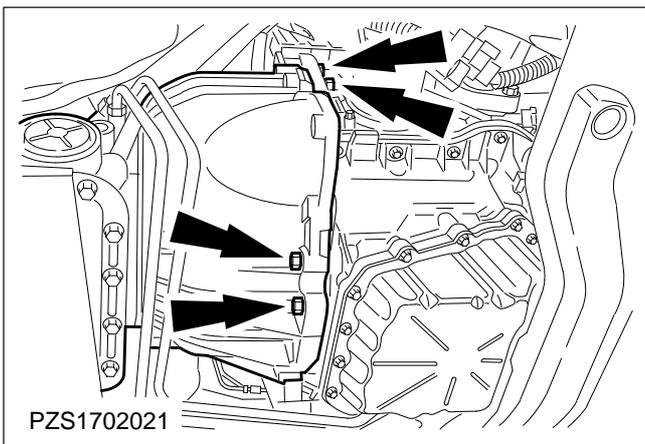
NOTE: Secure the automatic transmission to the transmission jack using a strap.

26. Lower the automatic transmission using the transmission jack until the transmission sump lies completely flat on the transmission jack.

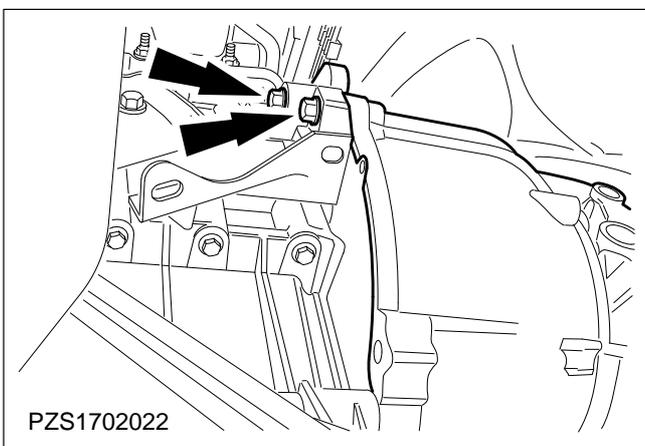


27. Remove the selector rod from the actuating lever.

Secure the selector rod to the body with adhesive tape.



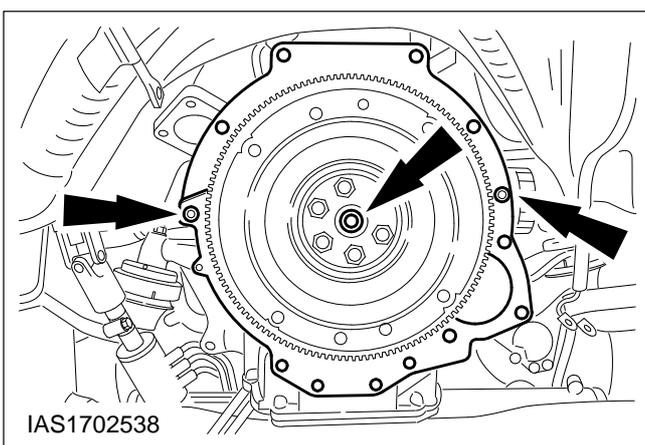
28. Remove the flange bolts on the right-hand side of the transmission.



29. Remove the flange bolts on the left-hand side of the transmission.

⚠ WARNING: The torque converter can drop out of the automatic transmission.

30. Separate the transmission from the engine and lower it carefully.



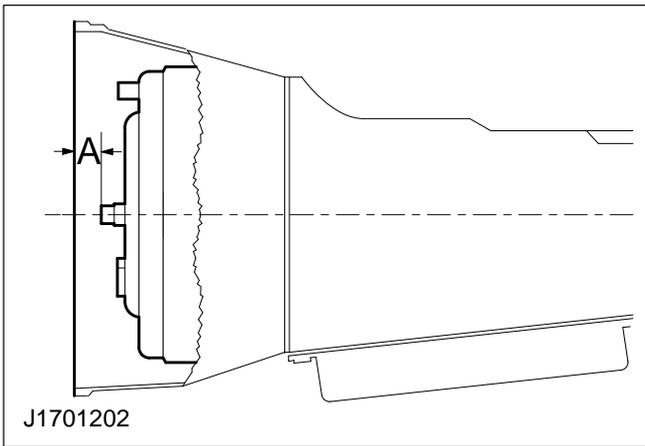
Install

31. Fit the guide sleeves from the automatic transmission flange in the engine flange.

32. Align the adaptor plate on both guide sleeves.

Fix the adaptor plate in place with a little high-temperature grease (ESDM-1C220-A).

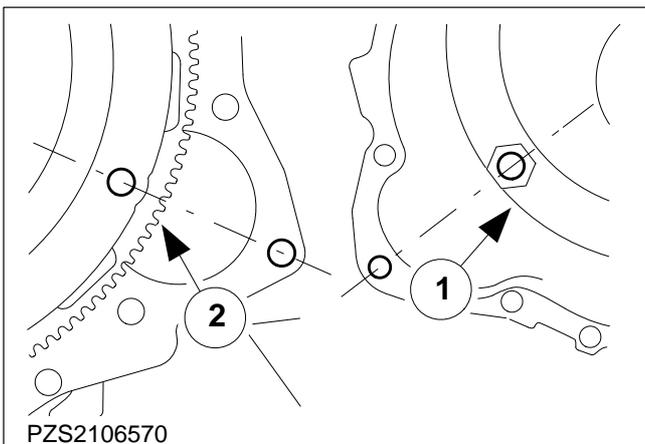
33. Apply a thin layer of high-temperature grease (ESDM-1C220-A) to the bore for the torque converter locating spigot.



NOTE: The hub of the torque converter must engage fully with the drive gear of the oil pump.

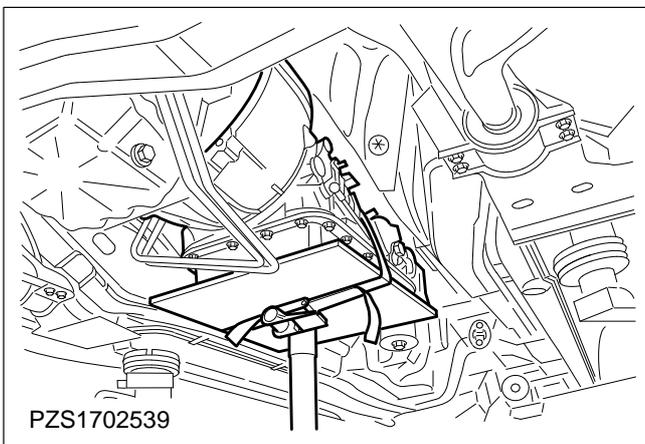
34. Check the installation depth of the torque converter:

Installation depth "A" between the converter assembly flange and the torque converter bore is 9 mm.



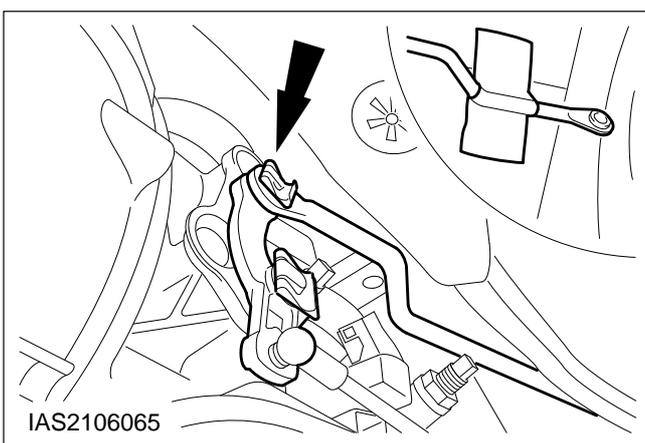
35. Locate the automatic transmission torque converter and engine drive plate in position.

- 1 Torque converter
- 2 Engine drive plate



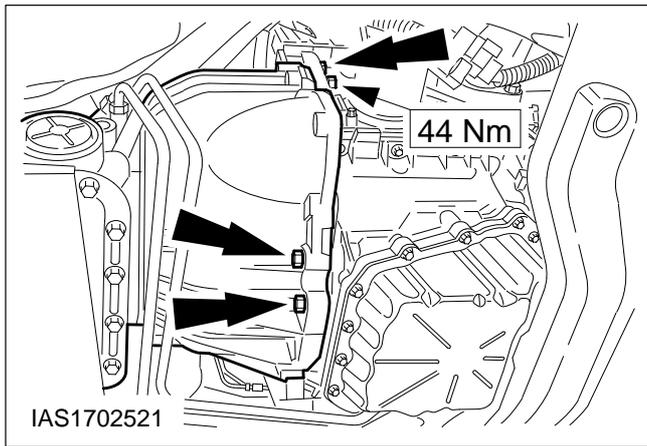
NOTE: Secure the transmission to the transmission jack with a strap.

36. Locate the transmission in position with the transmission jack and insert the flange bolts.

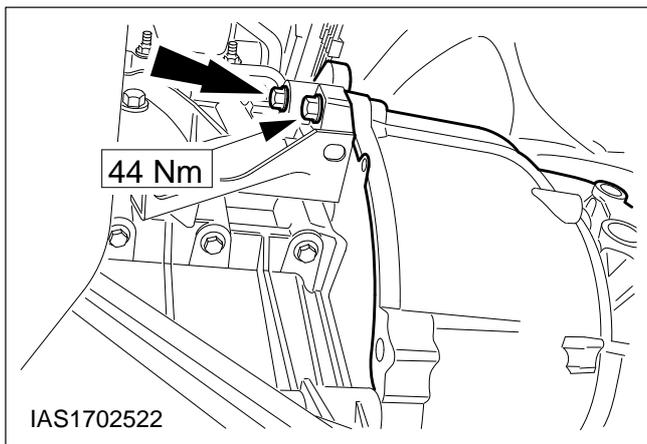


37. Fit the selector rod to the actuating lever.

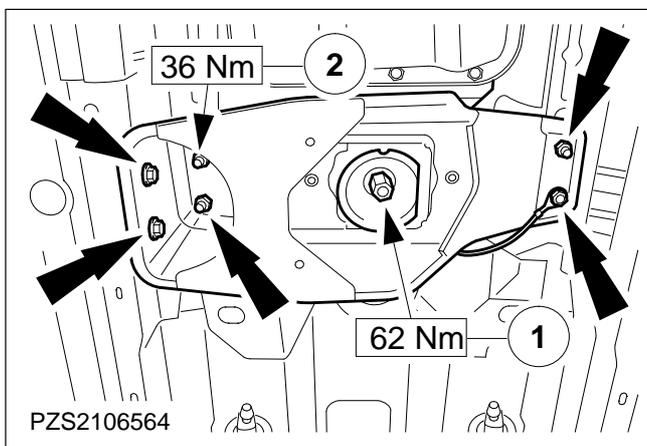
Remove the adhesive tape.



38. Tighten the flange bolts on the right-hand side.



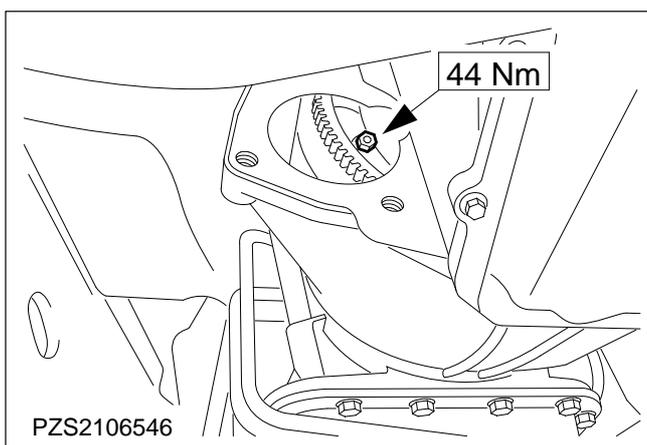
39. Tighten the flange bolts on the left-hand side.



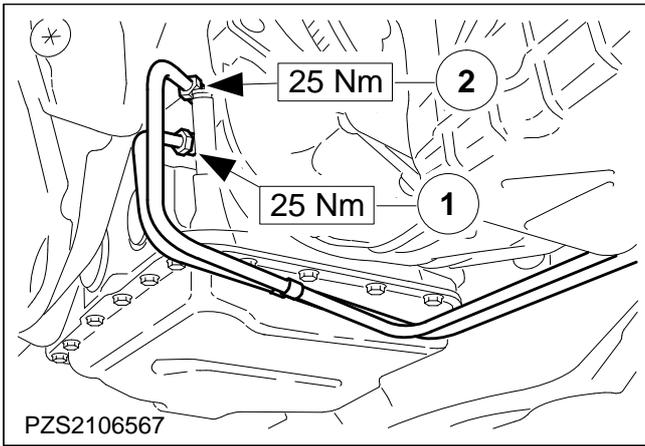
NOTE: Attach the ground lead.

40. Attach the transmission crossmember.

- 1 To the automatic transmission.
 - 2 To the body.
- Remove the strap.
 - Remove the transmission jack.

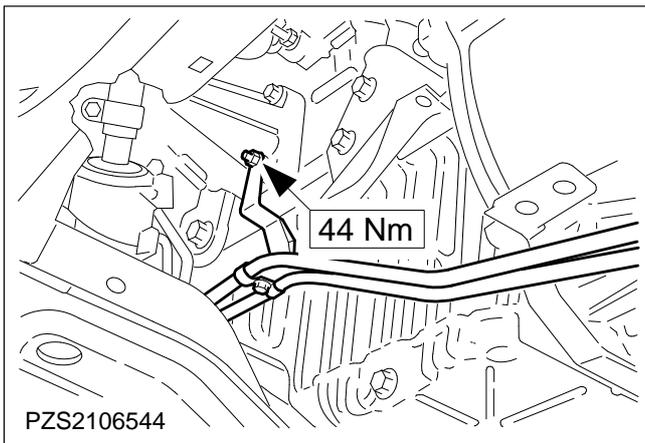


41. Fit the torque converter to the engine drive plate (four nuts).

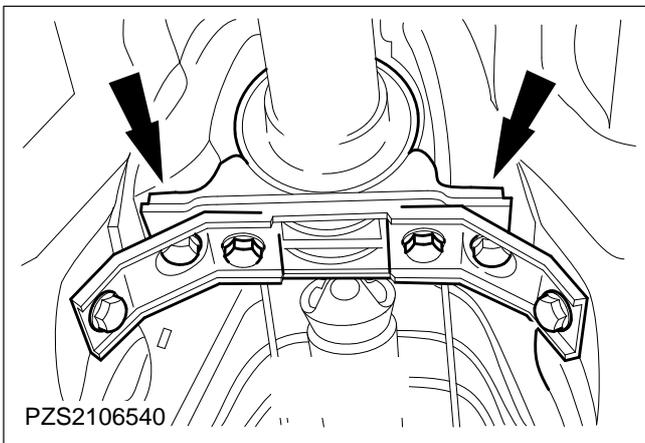


42. Fit the oil pipes to the transmission.

- 1 Return pipe
- 2 Feed pipe



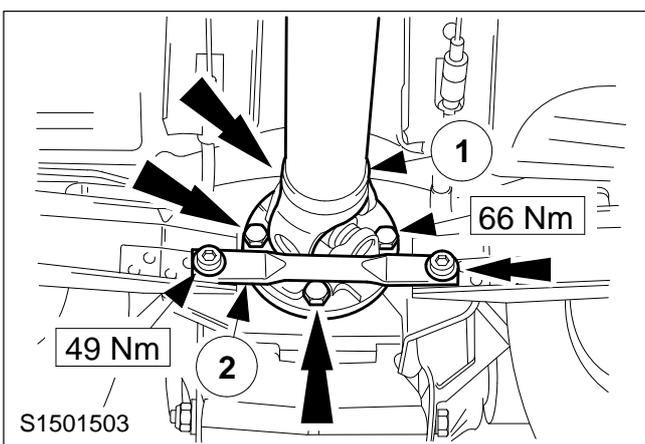
43. Attach the bracket for the oil pipes.



44. Fit the driveshaft to the automatic transmission.

NOTE: There are spacer washers between the floor assembly and the centre bearing.

45. Fit the driveshaft centre bearing loosely.



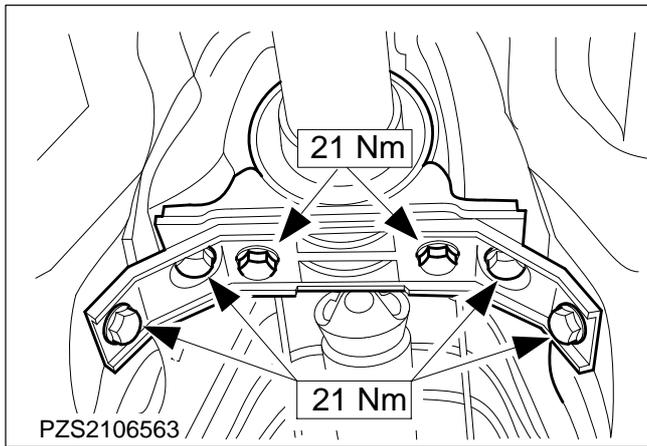
CAUTION: The driveshaft is finely balanced using bolts of different lengths. Note the marks showing the installation position of the driveshaft and bolts.

46. Attach the driveshaft to the rear axle.

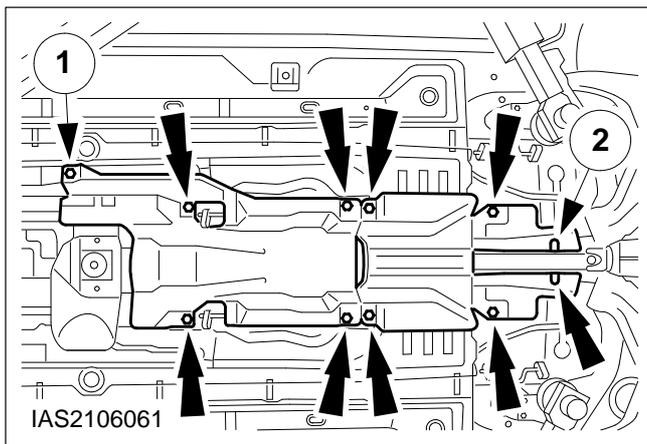
- 1 Attach the driveshaft to the rear axle flange.

NOTE: There is no transverse brace on vehicles from 01/96 onwards.

- 2 Attach the transverse brace.

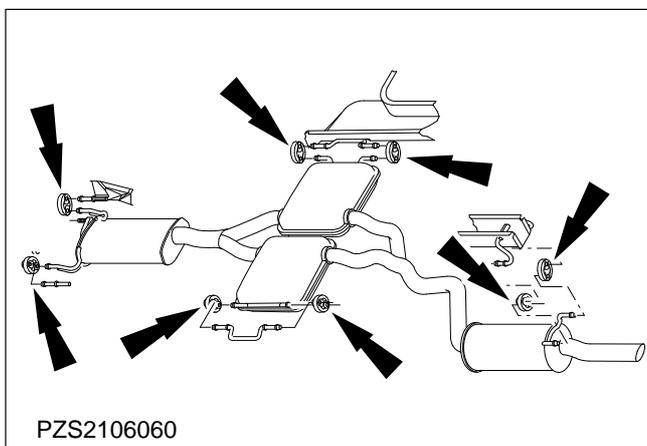


47. Align the driveshaft centre bearing free of strain and tighten the bolts.



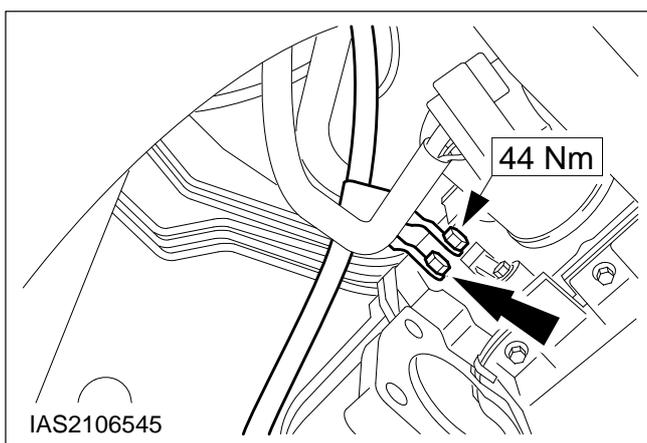
48. Fit the exhaust system heat shields.

- 1 Nine nuts.
- 2 Two clips



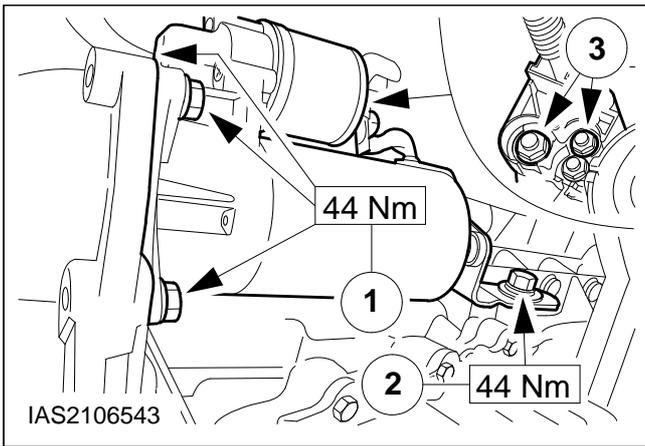
49. Fit the rear part of the exhaust system.

Attach the rubber insulators.

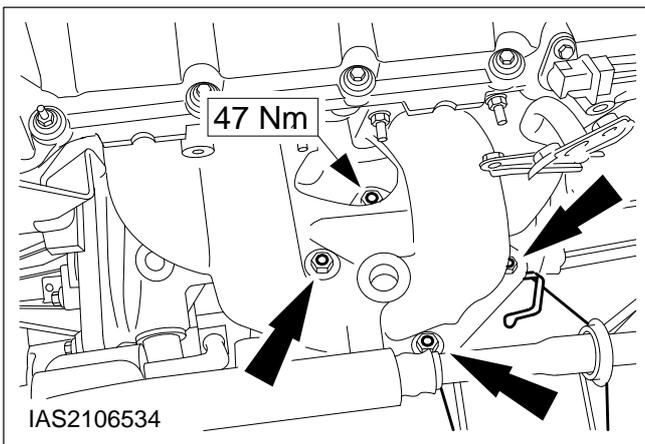
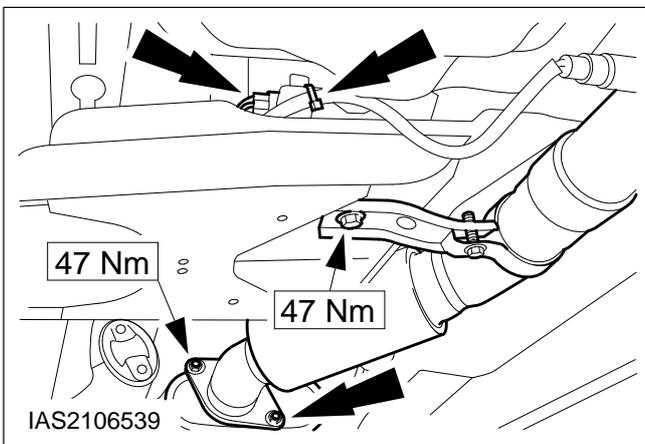


50. Fit the oil dipstick tube bracket of the transmission and ground lead.

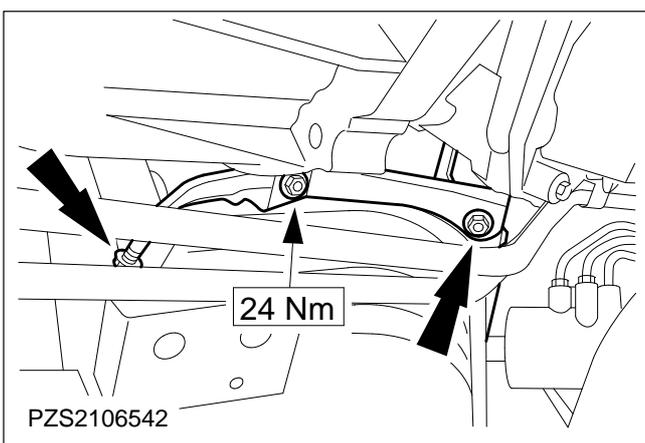
Attach the automatic transmission wiring loom.

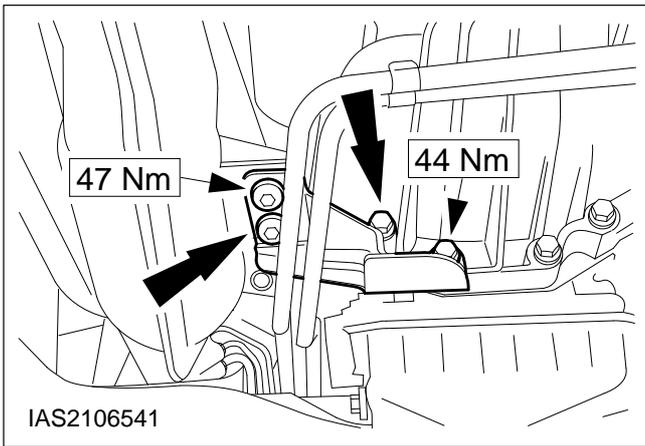
**51. Install the starter motor.**

- 1 Tighten the bolts.
- 2 Fit the bracket to the cylinder block.
- 3 Connect the starter motor.

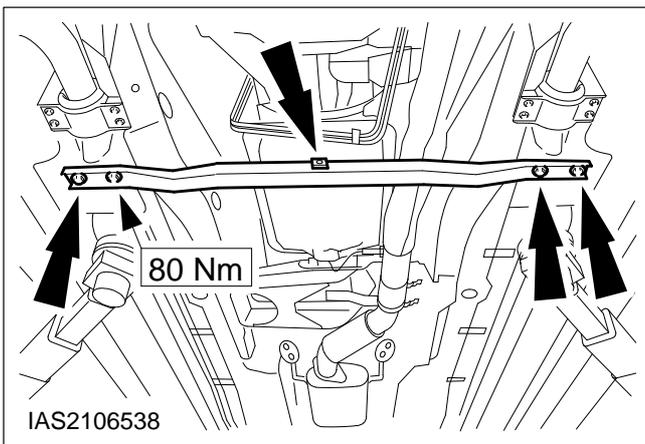
**52. Locate the catalytic converter, the front exhaust pipe and a new gasket in position.****53. Lower the vehicle.****54. Tighten the catalytic converter to the exhaust manifold.****55. Raise the vehicle.****56. Fit the front exhaust mounting to the transmission crossmember.****57. Fit the front exhaust pipe to the rear exhaust pipe with a new gasket.****58. Connect the HO2S multiplug.**

Secure the cable with a cable tie.

**59. Fit the front bracket of the catalytic converter.**



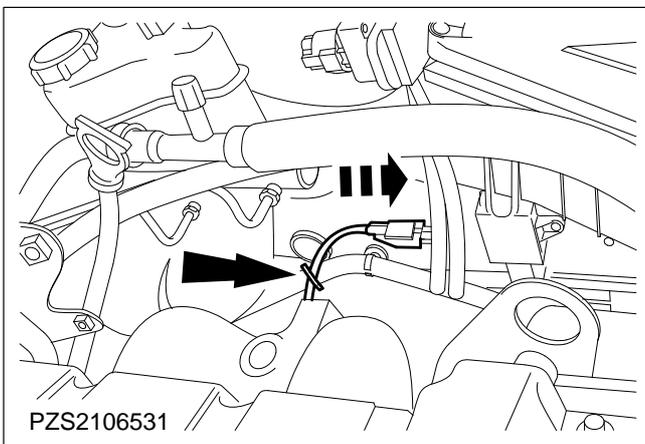
60. Fit the bracket to the catalytic converter and the transmission.



NOTE: The lug should point to the front.

61. Fit the front axle crossbrace.

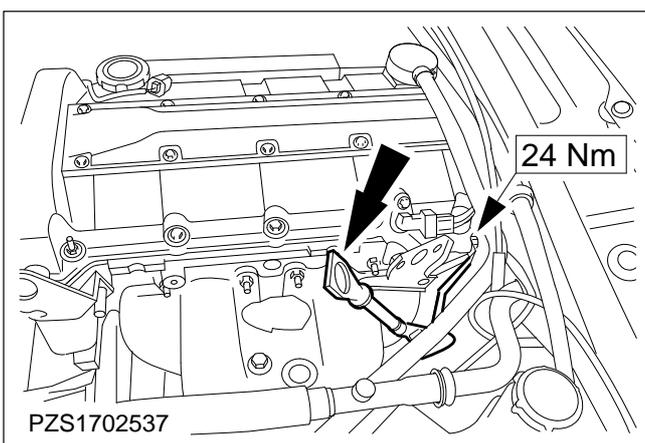
62. Attach the engine undershield.



63. Lower the vehicle.

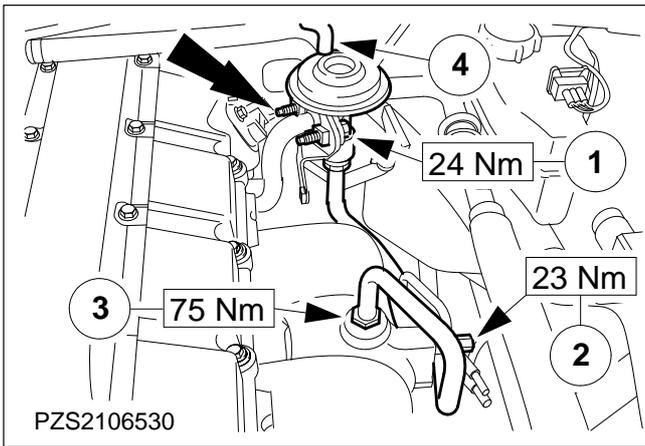
64. Connect the HO2S multiplug.

Secure the cable to the heater coolant hose with cable ties.



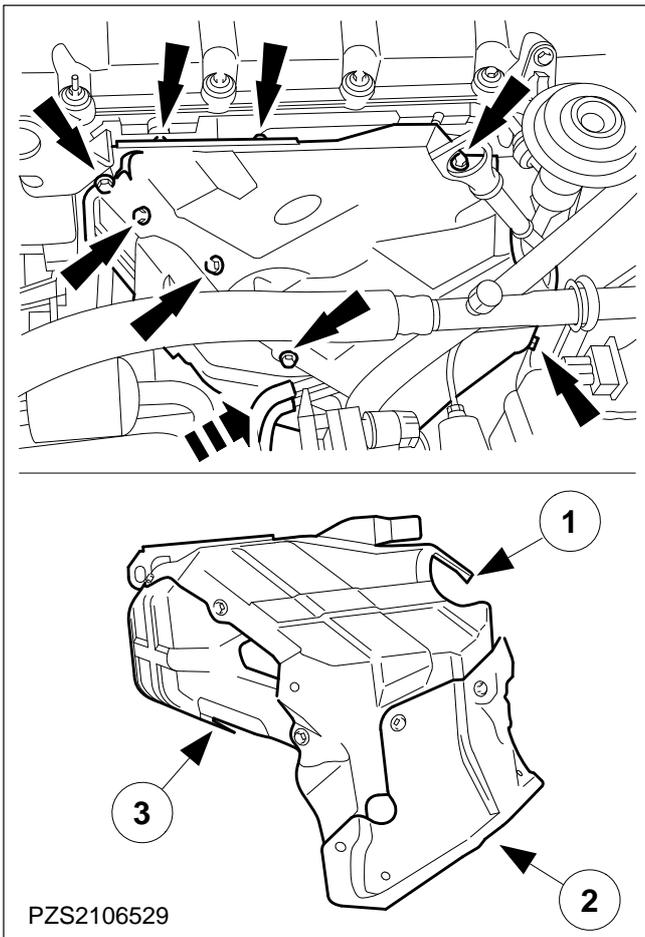
65. Fit the bracket for the oil dipstick tube.

Insert the oil dipstick.



66. Fit the EGR valve.

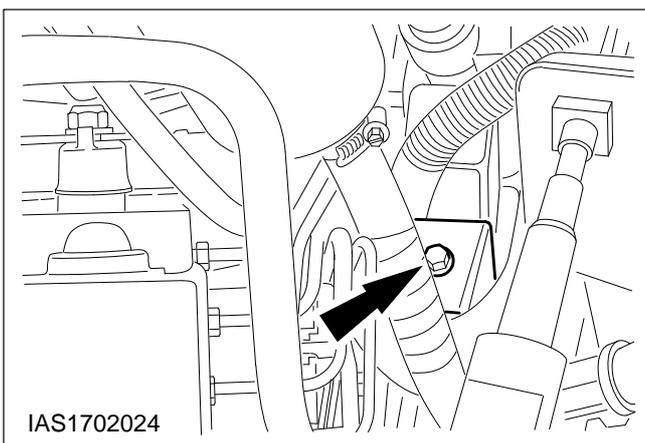
- 1 Fit the EGR valve to the bracket.
- 2 Fit the exhaust mounting to the exhaust manifold.
- 3 Bolt the exhaust pipe to the exhaust manifold.
- 4 Attach the vacuum hose to the EGR valve.



67. Fit the three-part heat shield.

- Fit the parts loosely in the sequence shown.
- Tighten the screws.

68. Fit the two vacuum hoses.



69. Attach the central multiplug to the transmission wiring loom.

70. Finishing operations:

- Check the routing of the cables and secure with cable ties.
- Insert the oil dipstick into the transmission.
- Connect the battery negative lead.
- Attach the battery cover.
- Check the automatic transmission fluid level and top up as required.
- Reprogramme the preset radio stations.
- Reset the clock.
- Carry out a road test to enable the PCM (EEC V) to collect data.
- Check the fluid levels and rectify as necessary.